BY ORDER OF THE COMMANDER
47TH FLYING TRAINING WING

LAUGHLIN AIR FORCE BASE
INSTRUCTION 21-104

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Maintenance

CRASHED, DAMAGED OR DISABLED AIRCRAFT RECOVERY (CDDAR)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Laughlin Air Force Base Instruction supplements AFI 21-101_AETCSUP_1, *Aircraft and Equipment Maintenance Management*, requirements for the Crashed, Damaged or Disabled Aircraft Recovery (CDDAR) Program. These procedures will be utilized in conjunction with published LAFB CEMP 10-2, Comprehensive Emergency Management Plan (CEMP) , and LAFB Plan 91-1, *Aircraft Mishap Response Plan.* It is applicable to all base agencies (military, civilian, and contractors) that have specific responsibilities to support CDDAR recovery efforts. Group commanders will ensure all personnel are familiar with these procedures and take appropriate action when notified of an aircraft mishap. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/gcss-af61a/afrims/afrims/rims.cfm**

SUMMARY OF CHANGES

This revision incorporates requirements IAW AFI21-101_AETCSUP_1, CDDAR equipment and addresses composite hazard personnel protective equipment/training.

1. Crashed, Damaged, or Disabled Aircraft Recovery (CDDAR) Responsibilities:

1.1. The Laughlin Control Tower will:

1.1.1. Activate the primary crash net upon notification of an aircraft mishap.

1.1.2. Consider advising taxiing and airborne aircraft of the mishap and instructing them to hold position or divert after consultation with the supervisor of flying.

1.2. The Command Post will:

1.2.1. Notify the Maintenance Operations Center (MOC) of aircraft type and approximate location.

1.2.2. Coordinate with the Incident Commander (IC) to activate the Emergency Operations Center (EOC) and notify key personnel.

1.3. Airfield management operations will:

1.3.1. Activate the secondary crash net upon notification of a mishap.

1.4. The MOC will:

1.4.1. Notify maintenance and other applicable base agencies of the mishap as outlined in Maintenance (MX) procedural checklists.

1.4.2. Coordinate with the CDDAR team chief to provide qualified MX personnel to support aircraft recovery.

2. CDDAR Equipment:

2.1. T-38 Maintenance Support Branch (MSB) maintains the crash recovery trailer containing the following equipment as a minimum:

2.1.1. T-38 lift sling with 4 jack pads with new bolts after every lift

2.1.2. Tie down chains, ropes with block and tackles and load binders

2.1.3. Four mattresses and various pads

2.1.4. A pick, axes, hoe, rake, rope, shovels, pry bars, and five tethering ropes

2.1.5. A 10-pound fire extinguisher (dry chemical ABC)

2.1.6. Clean fuel, hydraulic, oil sample kits

2.1.7. Two axle jacks

2.1.8. Four pneumatic lifting bags (sub-located in locker next to crash trailer)

2.1.9. Two 4-foot ladders

2.1.10. Cargo/web belts and T-38 snatch cables

2.1.11. Composite Tool Kit (CTK)

2.1.12. Temporary hard surface plates (sub-located next to crash trailer)

2.1.13. Aerospace Ground Equipment (AGE) lifts bag blowers (sub-located next to crash trailer)

2.1.14. Applicable safety equipment needed to support composite damage hazards and lift hazards. (i.e., gloves, hard hats, goggles, National Institute for Occupational Safety

and Health (NIOSH) approved dust mask, type suits, and fixant sprayers with solution to contain composite airborne hazards, also see para. 2.1.18.1)

2.1.15. 15-ton crane

2.1.16. T-1 Division/MSB maintains the following CDDAR support equipment for availability:

2.1.16.1. T-1 lift sling w/trailer (sub-located next to Hangar 1), tow bar/snatch cables, jacks and a Hobart GPU.

2.1.17. T-6 Division/MSB maintains the following CDDAR support equipment for availability:

2.1.17.1. T-6 lift slings, emergency tow bar/snatch cables, jacks and a Hobart GPU.

2.1.18. T-38 Division/MSB maintains the following CDDAR support/safety equipment for availability:

2.1.18.1. Powered Air Purifying Respirators (PAPR), damaged composite clean-up accessories, rubber over boots, tychem suits, emergency tow bar and tri-pod jacks.

2.2. The T-38 Aircraft Maintenance Division provides a qualified crane operator.

2.3. The base motor pool provides a 40-foot trailer and driver to support CDDAR operations, if required (24-hour availability).

2.4. The Civil Engineering Squadron (CES) provides heavy equipment vehicles and drivers to support CDDAR operations, if required (24 hour availability).

2.5. PPE required to perform CDDAR operations containing composite/hazardous materials is as follows:

2.5.1. Minor Structural Damage- Long sleeves, eye protection, nitrile gloves, leather gloves, and hard soled boots.

2.5.2. Major Structural Damage- Same requirements as above, with a NIOSH-approved respiratory dust mask due to increased levels of composite dust.

2.5.3. Fire Damage- Same requirements as paragraph 2.5.1, plus a powered air purifying respirator with a particulate filter.

2.5.4. Structural and Fire Damage- Same as above, plus the addition of a tyvek protective outer garment and rubber overboots.

2.5.5. When Blood Borne Pathogens are present, everything listed above with the addition of a tychem suit versus the tyvek suit.

3. CDDAR Program Requirements:

3.1. The 47 FTW/MX will:

3.1.1. Appoint a CDDAR team chief and track on the maintenance special certification roster (SCR). Publish a Maintenance Operating Instruction (MOI) identifying personnel responsibilities to support CDDAR operations.

3.2. The CDDAR team chief will:

3.2.1. Coordinate with maintenance training branch to develop course control documents and/or lesson plans for CDDAR training.

3.2.2. Ensure CDDAR procedures are coordinated with the fire department, safety, CES readiness, Lackland Air Force Base explosive ordnance disposal (EOD), security forces, bio-environmental, and airfield manager.

3.2.3. Maintain a list of tools and equipment required for CDDAR support. Inform the 47 FTW/MX in writing of equipment shortages or other serviceability issues that affect recovery operations.

3.2.4. Ensure sufficient personnel are trained for each assigned aircraft mission design series (MDS) to support CDDAR operations.

3.2.5. Ensure familiarization with/training on any unique characteristics/hazards/materials (i.e., Composite hazards/recovery, blood borne pathogens, Personal Protection Equipment (PPE), PAPR training, etc.) for the assigned aircraft are accomplished and documented in the Maintenance Information System. Specific tasks and qualifications will be documented in the individual's training record (i.e., Training Business Area (TBA), or Maintenance Information Systems (MIS) as applicable.

3.2.6. Ensure CDDAR team members receive initial training comprised of both academic and hands-on recovery exercises.

3.2.7. Conduct/participate in annual training exercises for each assigned MDS. Coordinate with the wing exercise evaluation team chief and maintenance Quality Assurance (QA) to evaluate CDDAR exercises. Ensure representatives from wing ground safety are notified to observe during these events.

3.3. The MOC will:

3.3.1. Initiate maintenance local CDDAR procedural checklists.

3.3.2. Inform Transient Alert (TA), CDDAR team, egress, and aircrew flight equipment personnel to assemble and standby for further instructions as determined by the IC or base fire chief.

3.3.3. Provide radios and vehicles to support maintenance CDDAR representative(s). Advise personnel responding to the mishap to switch to radio net four.

3.3.4. Coordinate with maintenance agencies to ensure oxygen, hydraulic, fuel, and oil samples are taken. Ensure support equipment used to service the aircraft is impounded pending investigation.

3.3.5. Instruct applicable work centers to isolate and secure all aircraft maintenance records. Notify Data Management to lock out the Integrated Maintenance Data System (IMDS) for aircraft involved. Records will be collected by maintenance QA and provided to the wing flight safety office upon request (specific records required are listed in LAFB Plan 91-1, Annex A, Appendix 25, Step 4).

3.3.6. For aircraft not assigned to Laughlin AFB, notify the owning base/organization of the mishap. Coordinate with the owning organization and local CDDAR team chief to determine support requirements for aircraft of different MDS than assigned wing aircraft.

3.4. If the aircraft mishap is located off station, the IC will determine the designated assembly area and coordinate required recovery operations.

3.5. T-38/T-1 Division/MSB will:

3.5.1. Provide the crash recovery crew for operating the 15-ton crane and crash recovery trailer. The crash recovery crew is put on standby in the work center until called for at the time the emergency situation is verified by MOC. On weekends or after duty hours, the night/weekend duty representative recalls necessary personnel. Minimum requirements for the crash recovery crew are members for the following positions:

3.5.2. One recovery supervisor/team chief.

3.5.3. One crane operator.

3.5.4. One swamper/general assistant.

3.5.5. Four recovery members required for the T-6 and T-38.

3.5.6. Seven recovery members required for T-1 aircraft.

3.6. T-38 and T-1 Divisions will maintain a respiratory protection program IAW AFOSHSTD 48-137, 29 CFR 1910.134 and LAFBI 48-137 due to CDDAR composites and blood borne pathogen hazards.

THOMAS E. MURPHY, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND DEFINITIONS

References

AFI 21-101_AETCSUP_1, Dated 21 October 2010 *Aircraft and Equipment Maintenance Management*

LAFB Plan 91-1, Dated 10 March 2011 *Post Mishap Response*

LAFB CEMP 10-2, Date 14 May 2010 *Comprehensive Emergency Management Plan (CEMP)*

Abbreviations and Acronyms:

AGE—Aerospace Ground Equipment

CDDAR—Crashed, Damaged or Disabled Aircraft Recovery

CEMP—Comprehensive Emergency Management Plan

COMBS—Contractor Operated and Maintained Base Supply

CTK—Composite Tool Kit

EOD—Explosive Ordnance Disposal

IMDS—Integrated Maintenance Data System

IC—Incident Commander

ISS—Installation Support Squadron

MDS—Mission Design Series

MIS—Maintenance Information Systems

MOC—Maintenance Operations Center

MOI—Maintenance Operating Instruction

MSB—Maintenance Support Branch

NIOSH—National Institute for Occupational Safety and Health

PAPR—Powered air purifying respirator

PPE—Personal protection equipment

QA—Quality Assurance

SCR—Special Certification Roster

Terms

Accident Scene—The cordoned area surrounding an accident site from which all nonessential personnel and resources are evacuated and prohibited.

Accident Site—The area surrounding the impact point in which hazards to personnel (wreckage, fire, or damage) are readily identifiable.

Cordon—A physical barrier surrounding the accident scene where controls are established to preclude unauthorized entry.

Emergency Operations Center (EOC)—The location where base support agencies convene to determine recovery efforts to support a major accident and establish command and control under the direction of the IC.

Incident Commander (IC)—The person designated to coordinate the rescue and recovery efforts at the crash site. This individual is the personal representative of the installation commander and controls all base agencies responding to an accident scene.

Major Accident—An accident involving Department of Defense materiel of such a magnitude to warrant response by the base disaster response force.